

MYLOTHRIS CHLORIS AGATHINA (CRAMER)
(LEPIDOPTERA: PIERIDAE),
A SPECIES WHICH HAS EXTENDED ITS RANGE
OF DISTRIBUTION FROM THE EASTERLY PART
OF SOUTH AFRICA TO THE EXTREME
WESTERN CAPE

By A. J. M. CLAASSENS Ph.D., M.Sc. * and C. G. C. DICKSON M.Sc. **

Mylothris chloris agathina (Dotted Border) has been known to migrate to some extent and has previously been recorded from Aberdeen (Mr. and Mrs. Wykeham); from Port Elizabeth; and in 1965 from Knysna, where C. G. C. D. found it not uncommonly, despite no sightings known previously, to us, from there. Since 1976 A. J. M. C. found it to be plentiful at Plettenberg Bay, Sedgefield, the Wilderness and George, and he found it later in Swellendam, where its presence was confirmed by R. J. Southey, on 11th March, 1981. But up till fairly recently it was only firmly established well to the east of Port Elizabeth. Trimen, in *S. A. Butt.* III: 32 (1889), mentions it as becoming numerous "about King William's Town". It has always been common at East London.

Agathina's great trek to the extreme west seems to have started in about 1980; although the initial movement from well within the Eastern Cape itself evidently preceded, considerably, the final migration. B. van der Riet states in *Metamorphosis* No. 6, April, 1984, that he noticed the butterfly at Hermanus and Onrust Rivier in the early 1980's. Dr. J. Ball observed a specimen in good condition at Somerset West on 1st March, 1981. In the following year he caught two examples in his garden at Pinelands, on 6th and 14th March. Far more northerly records of his, for mid-April, 1983, have been, from: Clanwilliam, the Pakhuis Pass, Wupperthal, Grey's Pass and Citrusdal. Claassens found a flourishing colony at Greyton in early 1981; and where the species still occurred in January, 1982. He recorded it also from Hermanus in January, 1982, from Ceres in late May, 1982, from Onrust Rivier in December, 1982 and from

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Legend to plate I

Mylothris chloris agathina (Cramer). Fig. 1. larvae, final instar, on *Colpoon compressum* Berg. (X0.5); Fig. 2. pupae (x0.9); Fig. 3. male, underside (x0.9); Fig 4. male and female uppersides (x0.4) *Zophopetes dysmephila* *dysmephila* (Trimen). Fig. 5. eggs on palm leaf; Fig. 6. final instar larva on palm leaf (x0.85); Fig. 7. exposed pupae (x1.1) : Fig. 8. male and female uppersides (x0.59). (The recorded degree of reduction or enlargement is approximate. Caption to plate should read "Photo : A. J. M. C.").

Mossel Bay in early July, 1984. Other lepidopterists have sighted the butterfly in the following places:—

C. W. Wykeham: at Claremont in early March, 1981; in the Oranjezicht district of Cape Town a little later in the year; at Ottery, in the Cape Peninsula and at Gordon's Bay on 20th August, 1982; at Tulbagh-Kloof on 5th September, 1982 and at Strandfontein in November, 1982; also on the Waai Hoek Mtns. on March, 1984; Dr. D. M. Kroon: In Kogelberg Reserve, west of Kleinmond, in the first half of April, 1981; G. J. Howard: in his garden at Lakeside on 17th April, 1982; and his son William at Kalk Bay on 22nd April, 1982; T. Waters and H. Selb: at Kleinmond in numbers on 16th December, 1981 and at the same place in the later part of July, 1982; also many specimens at Kleinmond and Gordon's Bay on 31st December, 1982. Dr. J. Giliamee of Stellenbosch referred in a letter of 21-9-82 to hundreds of specimens having been seen just outside Gordon's Bay; and his having seen specimens in his own garden, for the first time, on September, 1981.

Since 1983 *agathina* has been common in the South Western Cape, especially in the coastal areas including the entire Cape Peninsula. It has been established with certainty that the butterfly breeds readily in its new westerly territories and that its food-plant is the widely distributed shrub, *Colpoon compressum* Berg. (Santalaceae).

Dickson reared many larvae and pupae, and finally 32 imagines, from eggs laid in captivity. Three females caught at Michell's Pass (near Ceres) in late May, 1982, by Claassens in the company of his wife, oviposited readily on leaves of the food-plant collected in Cape Town, and provided the material for the above rearing of the species as well as the photographs in the article. He also successfully reared many imagines from eggs laid by the butterfly on the food-plant in Blinkwater Gorge, at Camp's Bay, and found by Claassens in late April, 1984.

Dr. Mark Williams mentioned in *Metamorphosis*, No. 6, April, 1984, that he had found the species, commonly, all over the slopes of the Muizenberg Mtns., above St. James, and had found larvae feeding on *Colpoon compressum*, in January, 1984.

The somewhat barrel-shaped eggs, bright yellow in appearance, are generally laid on the underside of the leaves, and in batches, with as many as 82 eggs in one case, in one batch. The larvae emerged from the eggs after about 24 days of incubation. Emerging larvae ate the egg shells and sometimes the shells of neighbouring eggs from which larvae were emerging; as well as unfertilised eggs. The larvae cluster together in a strange manner, presumably as a protective measure, when resting, and are then hardly distinguishable individually as larvae. When disturbed the clustered larvae quickly descend from their resting place by means of a silken tread, thus rendering themselves inconspicuous among the foliage and allowing them to escape from predators. More recently, a considerable group of cap-

tive final-instar larvae were seen to move in well-defined processional formation when temporarily removed from their container.

From the literature consulted the final-instar larvae should have dull-red or red-brown intersegmental bands, but this was not so in any of the present final-instar larvae, in which the bands were devoid of any decidedly reddish tone. There are five larval instars. In the case of the present observations one batch of larvae attained full growth and pupated in about 53 days and the butterflies emerged from the pupae after about 20 days. There was little disparity in the incubation period of the different groups of eggs and the rate of development of the resultant larvae. Our observations represent, of course, those of a Cape winter brood of the species. The butterfly occurs throughout the year, if not equally plentiful in all months.

For the entire life-history of *Mylothris chloris agathina*, by the late Gowan C. Clark, see Van Son's work, *The Butterflies of Southern Africa*. Pt. I : 225-6, Pl. XL. (1949). The plate is, however, only a half-tone reproduction.

ZOPHOPETES DYSMEPHILA DYSMEPHILA (TRIMEN), A BUTTERFLY INTRODUCED INTO THE EXTREME WESTERN CAPE ON PALMS

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Zophopetes dysmephila dysmephila, known by its English name as the Palm Nightfighter, belongs to the family HesperIIDae (Skippers). The natural haunts of this butterfly are found in the Eastern Cape, Natalland the Transvaal (but not the Highveld portions thereof), where it breeds on the common Date Palm, *Phoenix dactylifera* L. and another palm species, *P. reclinata* Jack.

The butterfly was first recorded from the Cape Peninsula by K. Gallon, from her home at Claremont on 10th September, 1980. Her identification of the specimen was confirmed by C. G. C. Dickson. Subsequent observations revealed that the early stages of the Skipper occurred on the Date Palms growing in the surrounding garden. This discovery of the butterfly in the extreme Western Cape was soon followed by the capture of specimens and records of early stages on Date Palms in a number of localities near and in the Cape Peninsula. Claassens and Dickson found the eggs and larvae of the butterfly on palms at Kirstenbosch on 24th May, 1981. The photographs of the early stages appearing in this article were taken from material collected at Kirstenbosch. G. J. Howard found eggs and larvae near his house at Lakeside on an earlier date. D. van der Walt caught a number of specimens on his veranda at Rondebosch,